



BODKIN
DESIGN & ENGINEERING

COMPARISON OF PUBLISHED & MEASURED COLOR
CHART SPECTRA

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INTRODUCTION

The following presentation demonstrates the color reproduction capability of a Bodkin Design hyperspectral imager that captures both spectral and spatial information of a scene simultaneously. The series of plots compare data obtained from a standard Munsell color chart using a FTIR spectrometer and Bodkin Designs's VNIR-20 spectrometer. The output from the two spectrometers are comparable.

Munsell Color Chart Images

Hyperspectral images were taken of the X-rite Color Checker Chart with the VNIR20B spectrometer

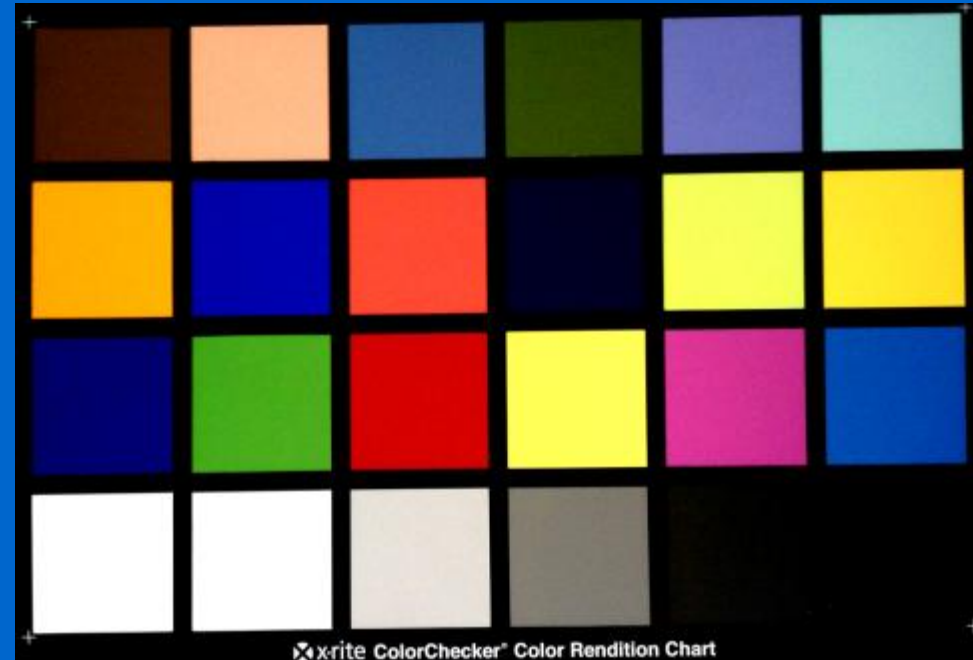
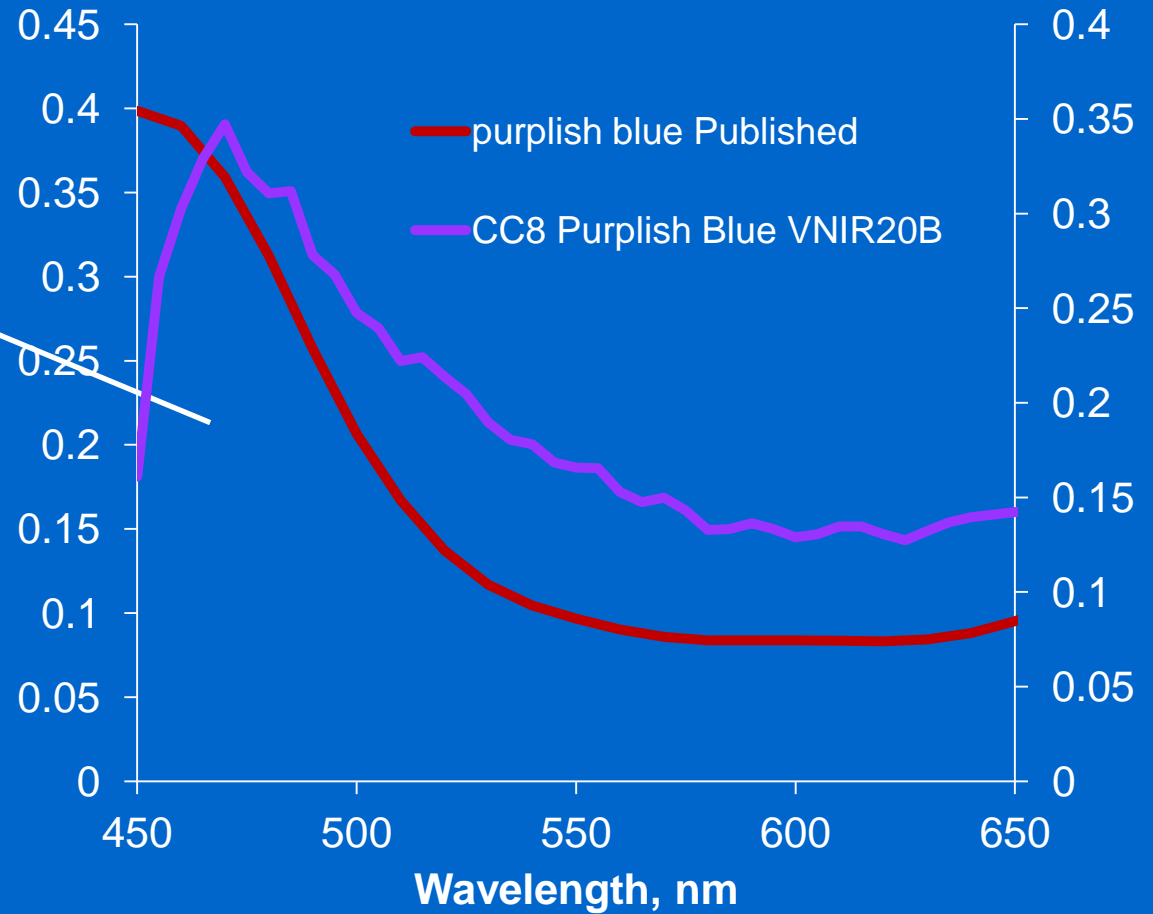
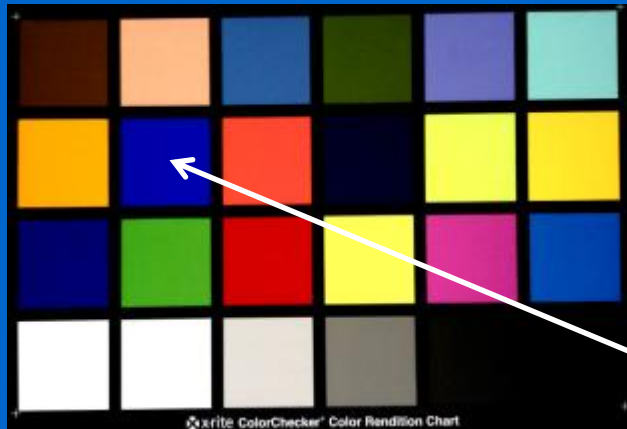


Image taken with color digital camera

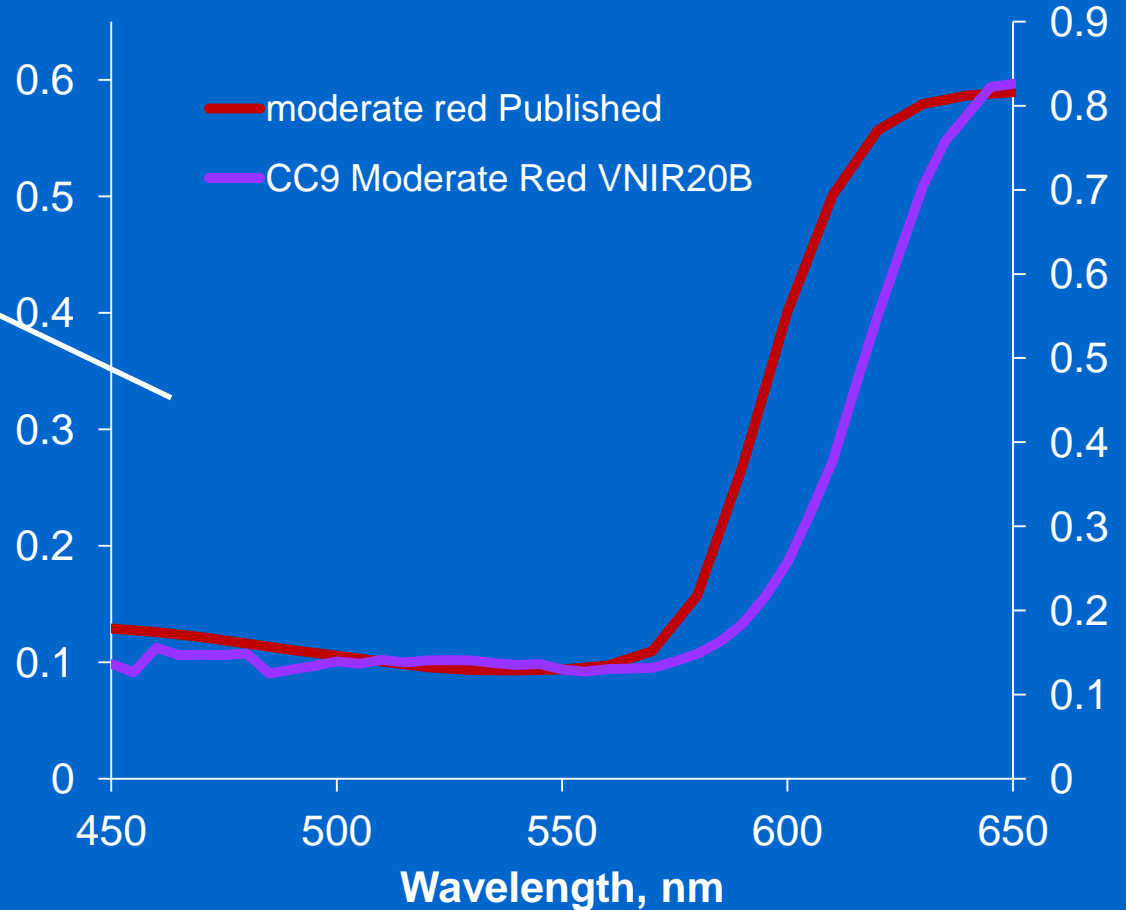
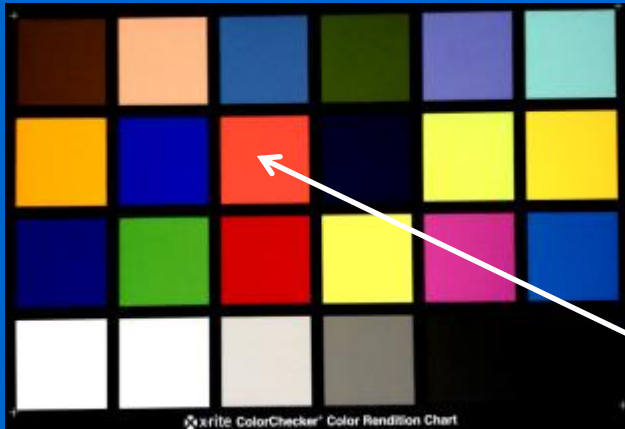


RGB (635nm, 530nm, 470nm) Composite Image made from Hyperspectral Image of color chart

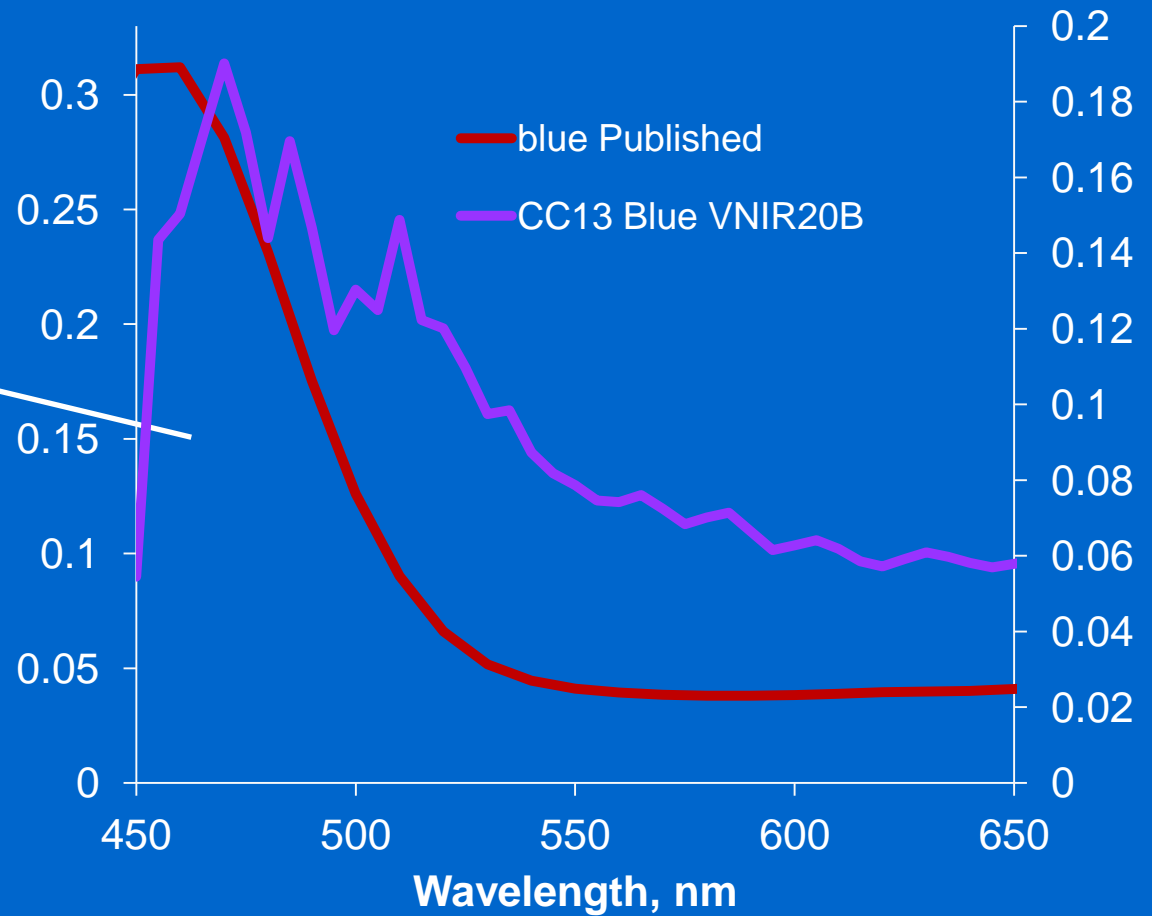
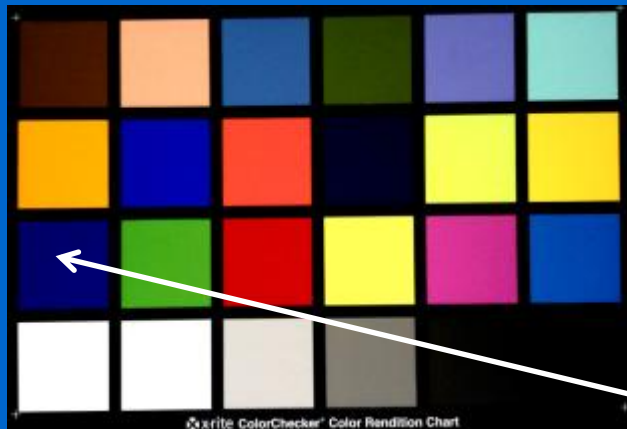
Color Chart Spectra, Purplish Blue



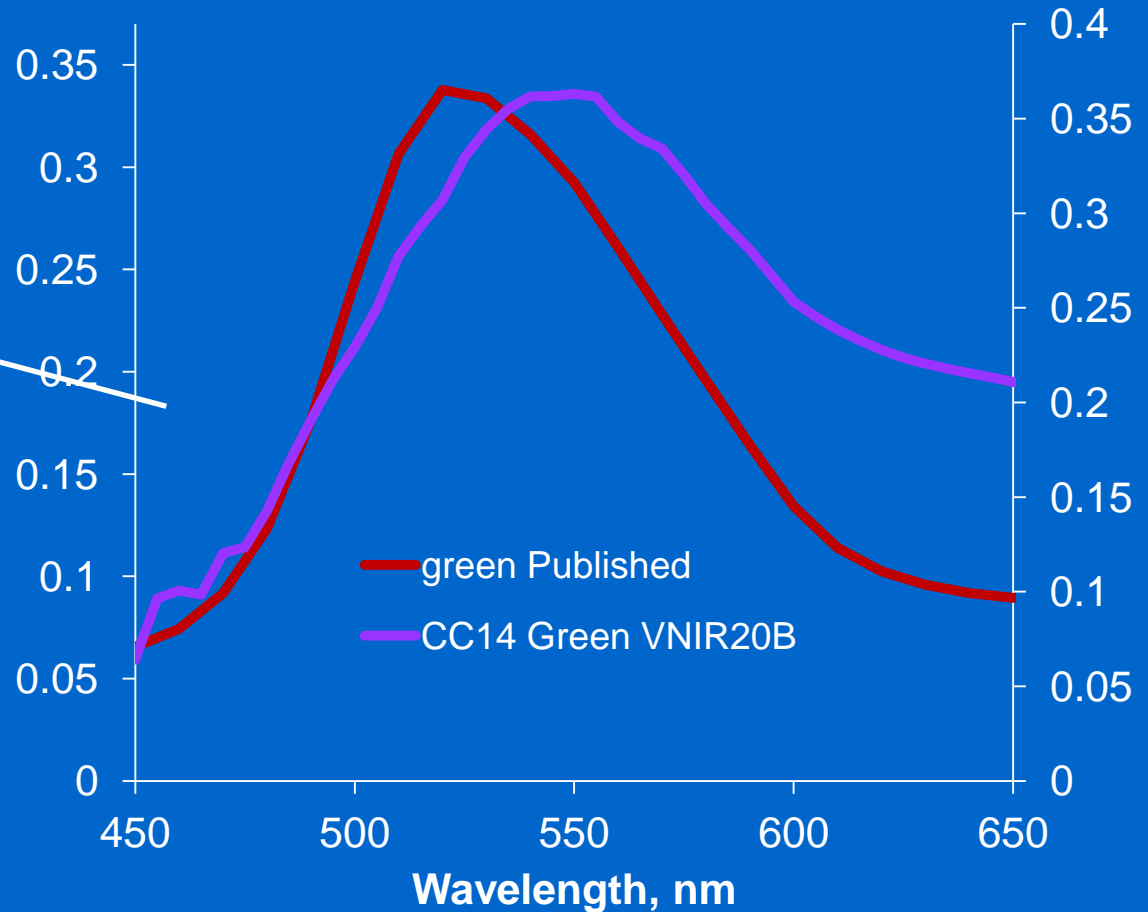
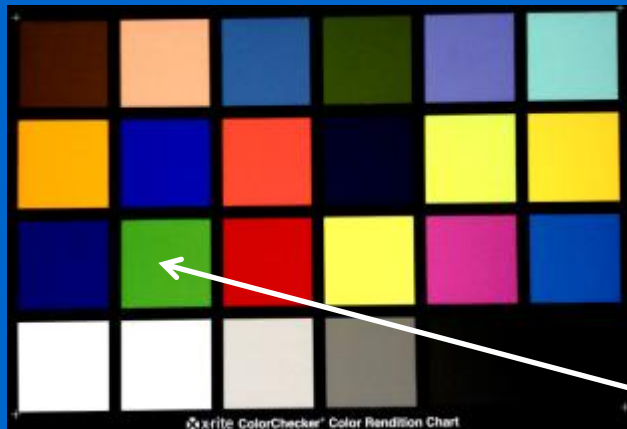
Color Chart Spectra, Moderate Red



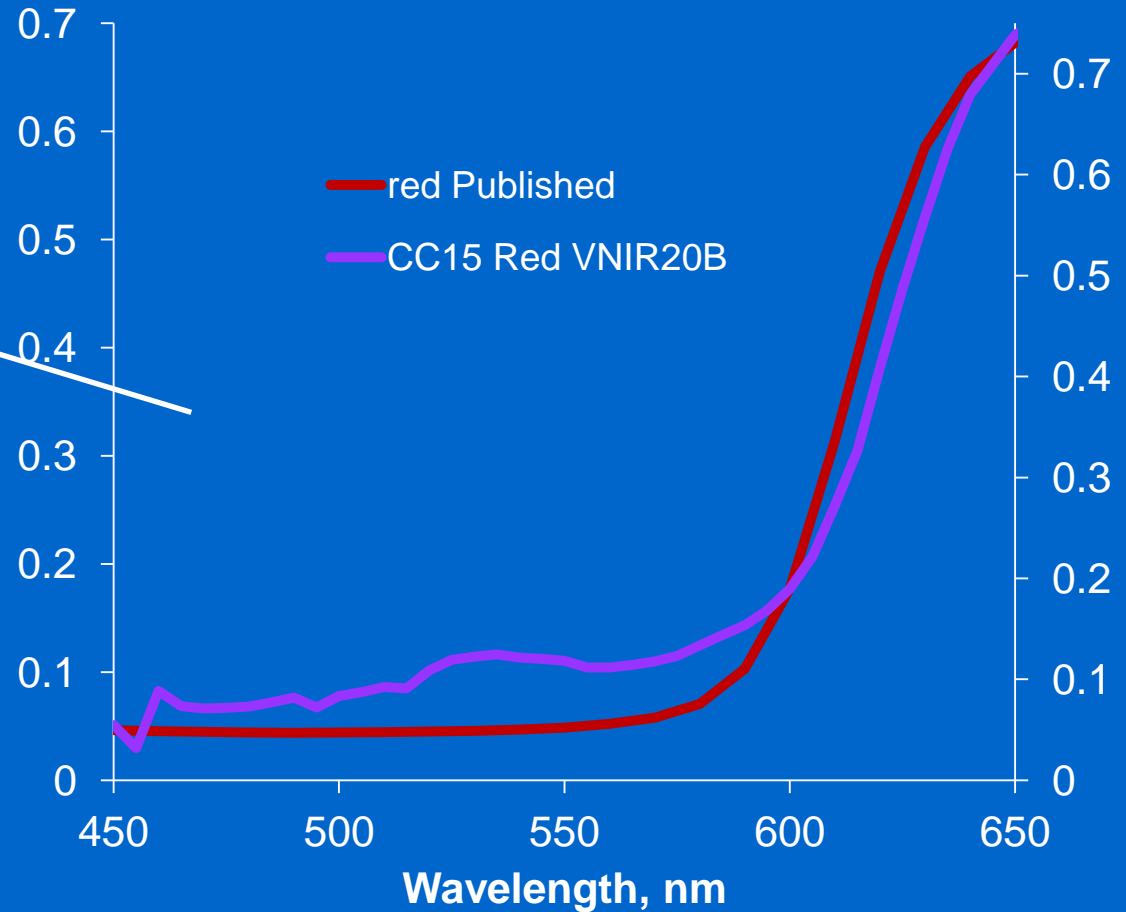
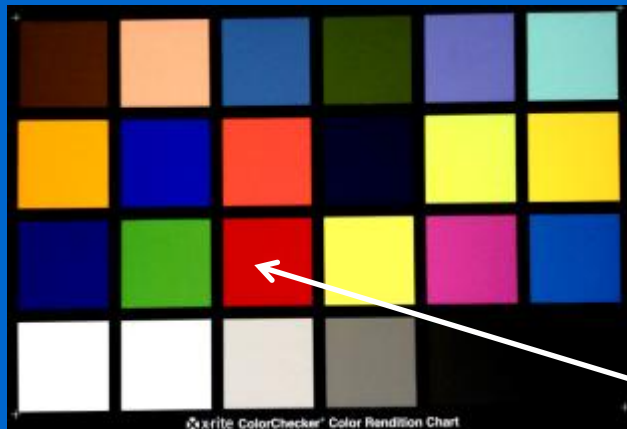
Color Chart Spectra, Blue



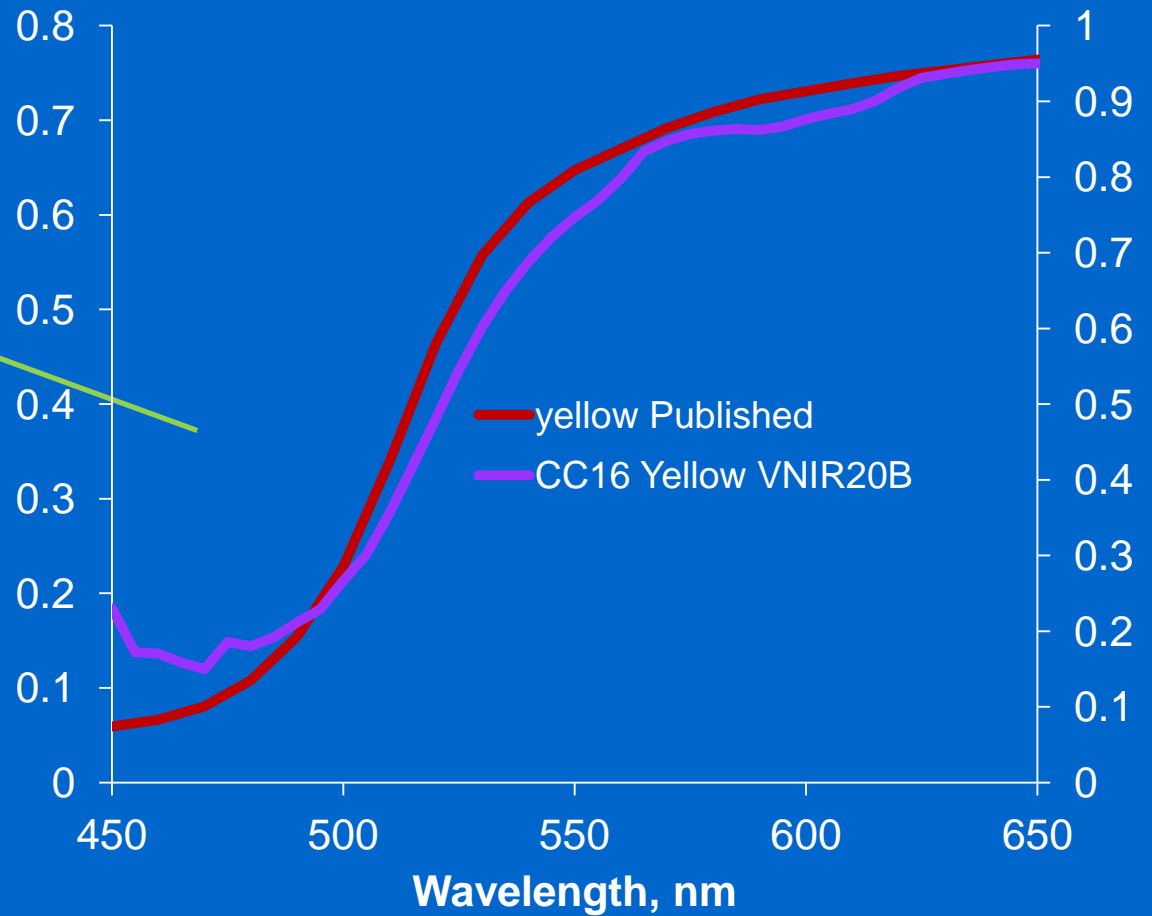
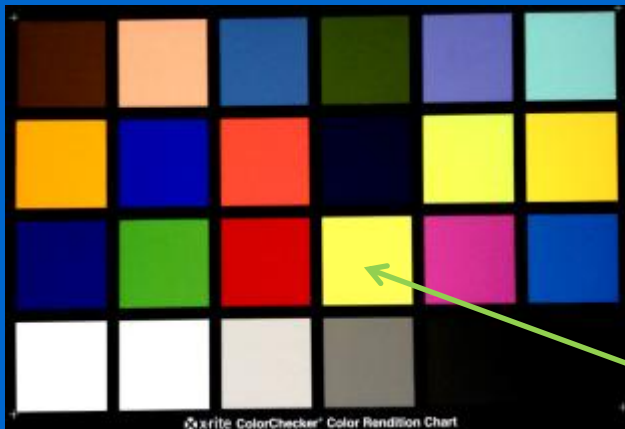
Color Chart Spectra, Green



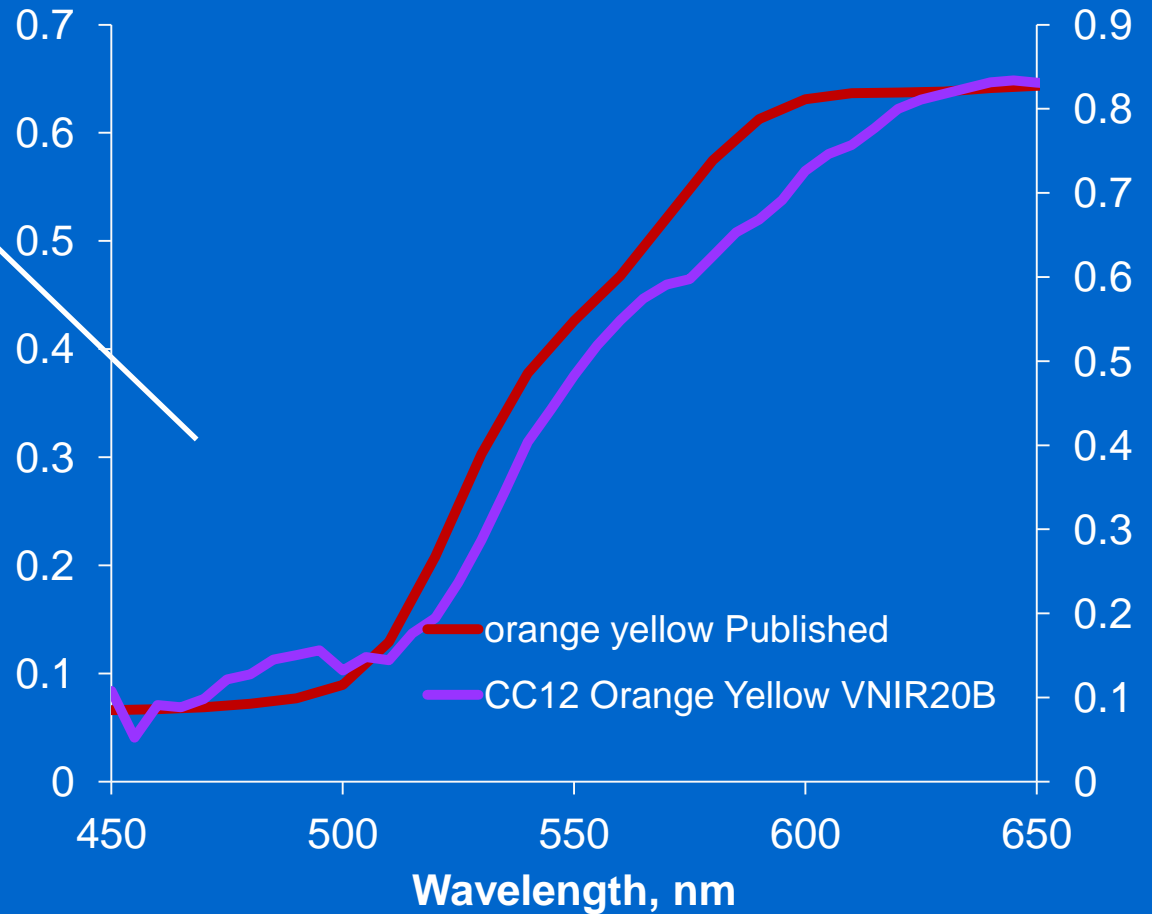
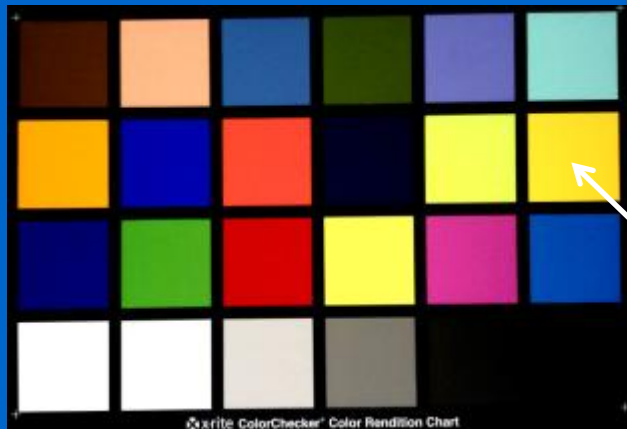
Color Chart Spectra, Red



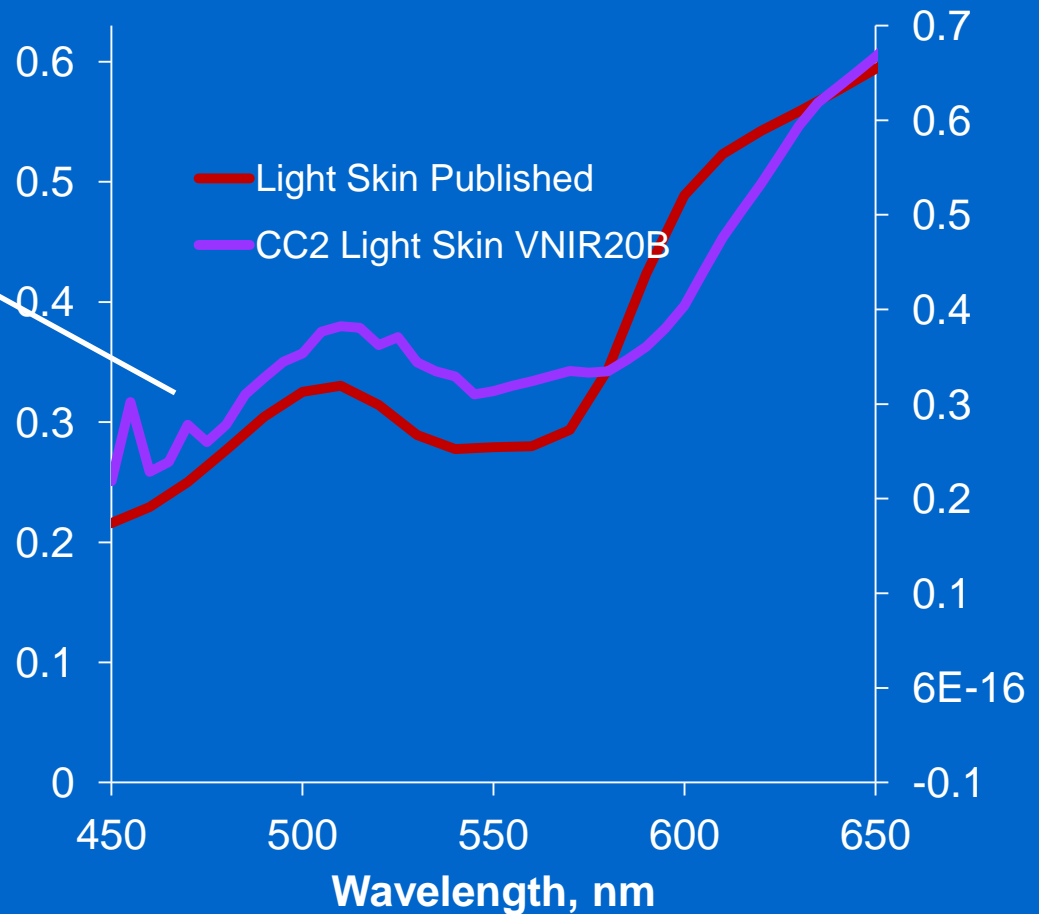
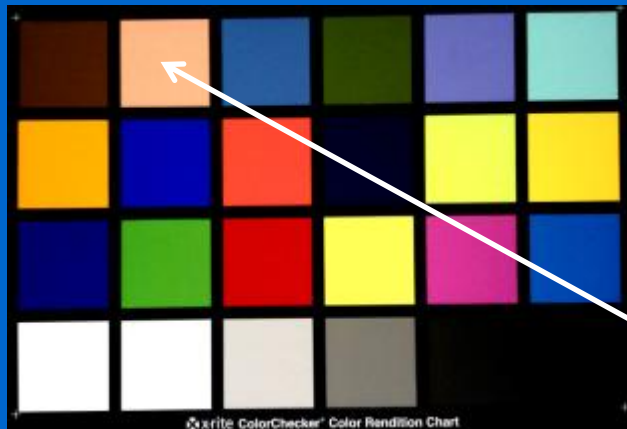
Color Chart Spectra, Yellow



Color Chart Spectra, Orange Yellow



Color Chart Spectra, Orange Yellow



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CONCLUSION

Bodkin Design's VNIR-20B hyperspectral imager faithfully reproduces results of FTIR reference data.